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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,079	09/09/2003	David Alexander	IMMR-IMD0002C(434701-067)	9176
34300 7590 09/08/2009 PATENT DEPARTMENT (51851) KILPATRICK STOCKTON LLP 1001 WEST FOURTH STREET WINSTON-SALEM, NC 27101			EXAMINER MUSSELMAN, TIMOTHY A	
			ART UNIT	PAPER NUMBER
			3715	
			MAIL DATE	DELIVERY MODE
			09/08/2009 PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/657,079

Applicant(s)

ALEXANDER ET AL.

Examiner

TIMOTHY MUSSELMAN

Art Unit

3715

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-24, 26-28, 30, 31 and 33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24, 26-28, 30, 31, 33 and 119 is/are allowed.
- 6) ☒ Claim(s) 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 14-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/6/2009.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

In response to the communication filed 7/6/2009, claims 12-24, 26-28, 30-31, and 33 are pending in this application.

Claim Rejections - 35 USC § 102

The following is a quotation of the relevant portion of 35 U.S.C. 102 that forms the basis for the rejections made in this section of the office action;

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States.

Claims 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Gillio (US 5,882,206).

Regarding claims 12 and 13, Gillio discloses a capture mechanism configured to engage a peripheral device. See col. 6:61 - col. 7:5. Gillio also discloses wherein the capture mechanism comprises an actuator to adjust the cross sectional dimension of a capture mechanism. See col. 7: 5-18 and the labels referred to therein in figure 4. Gillio also discloses wherein the actuator movements (i.e. the force feedback caused by the controlled 'pinching' of the peripheral device) are performed automatically in response to the sensed user manipulation of the device, which would necessarily involve providing force against the capturing roller devices. See col. 7: 15-20. Note that the force provided against the rollers would be *parallel* to the direction of travel of the inserted device. That is to say that the force causing the rollers to actually *roll* would have to be forward (e.g. insertion) or backward (i.e. removal).

Allowable Subject Matter

Claim 14 is objected to as being dependant upon a rejected base claim, but would be allowable if rewritten to include the limitations of the base claim and any intervening claims. This claim is considered allowable because the prior art does not teach or suggest an automatic cross-section dimension-adjusting capture mechanism automatically responsive to sensed user movements of an inserted peripheral device including an outer tubular member and an inner-tubular member at least partially disposed within the outer-tubular member for adjusting the capture mechanism and the inner tubular-member being coupled to the sensing assembly at a distal end of the inner tubular-member.

Regarding claims 15-18 are objected to as being dependant upon a rejected base claim, but would be allowable if rewritten to include the limitations of the base claims and any intervening claims. These claims are considered allowable because the prior art does not teach or suggest a automatic cross-section dimension-adjusting capture mechanism responsive to sensed user movements wherein the cross sectional adjusting mechanism resides in a sensing assembly configured as a trolley which travels along a guide rail and is attached by belts to pulleys. While Bailey discloses such a trolley and pulley sensing assembly, and Gillio discloses an apparatus that controls force feedback to a user by adjusting the cross-sectional dimension of a capture mechanism, there is no teaching in the prior art for the combination of the these elements as applicant claims in each of claims 15-18.

Claims 19-24, 26-28, 30-31, and 33 remain allowed as previously indicated.

Response to Arguments

Applicant's arguments dated 7/6/2009 have been fully considered but are not persuasive. Applicant argues that in the system of Gillio the inserted device does not apply a force to the dimension adjusting mechanism in a direction parallel to the direction of movement of the peripheral device. Rather, applicant asserts that the force is pressed outward as indicated by arrows 246 and 248 of figure 4. While examiner does not argue that there is an outward force as indicated by figure 4, it is asserted that there is also a

forward (insertion) or rearward (retraction) tangential force applied to the rollers of the retention mechanism that occurs with, and in the direction of, movement of the peripheral device. It is this tangential force that would be required to actually cause *rolling* motion of the rollers. It is described in col. 7: 15-20 wherein the software controls the force feedback generated for the inserted device, based upon the parameter being simulated, one example being a *virtual collision* with a structure. A collision would require movement of the peripheral device to the point of collision. Thus in at least some cases, the force feedback is adjusted based upon *movement* of the peripheral device, and movement of the device would require the peripheral device apply a tangential force to the rollers of the grasping mechanism.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY MUSSELMAN whose telephone number is (571)272-1814. The examiner can normally be reached on Mon-Thu 6:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on (571)272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. M./
Examiner of Art Unit 3715

/XUAN M. THAI/
Supervisory Patent Examiner, Art Unit 3715